

Serial No.: 09/420,616

Attorney Docket No.: 99P7918US

**REMARKS**

Upon entry of the instant Amendment, Claims 1-14 and 16 are pending. Claim 15 has been canceled. Claims 1 and 14 have been amended to more particularly point out Applicants' invention.

Claims 1-16 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. In particular, it was alleged that "[t]he claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s), at the time the application was filed, had possession of the claimed invention." Applicants respectfully submit that the recitations of the claims are fully supported in the specification.

In claims 1-4, there was alleged to be no support for the limitation "means for adjusting a length of said one or more information packets for input to said jitter buffer based on a size of said jitter buffer;" in claims 5-8, there was alleged to be no support for the limitation "adjusting a length of said one or more information packets for input to said jitter buffer based on a size of said jitter buffer." In support of this contention, the Official Action quotes Page 6, lines 9-24 of the application:

[T]he controller 110 monitors a size of the jitter buffer 113 and the size of data packets being packetized in the packetizer 80. If the packet size is less than a predetermined threshold related to jitter buffer size, then the packet size is increased to the threshold level. If the two H.323 endpoints have different sized jitter buffers, then the packet size may be set to the greater of the two, i.e., to maximize jitter buffer filling.

Applicants respectfully disagree, and point out that this quoted passage clearly indicates that packet size is compared to and adjusted to a predetermined threshold *related to jitter buffer size*. In addition, support is found in the Summary of the Invention, where it is stated that

[a]ccording to one embodiment, a threshold of packet length as a fraction of jitter buffer size is established. When call set up is undertaken, client terminals check the packet sizes against the threshold. If the packets sizes are below the threshold, they are adjusted upwards. If they are already above the threshold, the packet sizes are left alone.

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Similarly, support is found at page 3 of the specification, which states that

[a]s will be described in greater detail below, the jitter buffer controls 110a, 110b function to identify jitter buffer size and packet size. If the packet size is lower than a predetermined threshold (typically, a fraction of the jitter buffer size), the packet size is increased. That is, the data are packetized according to the adjusted size.

Applicants respectfully submit that support for the claimed limitation is thus indeed found in the specification, which clearly provides that packet size is increased if it is less than a predetermined threshold related to (or based on) jitter buffer size.

In claims 9-13, the recited limitation "wherein each of said plurality of endpoints includes a jitter buffer controller configured to adjust a packet size of packets being input to said jitter buffer for communication over said packet network" was alleged to be unsupported in the specification. The Examiner's attention is respectfully directed to the above-quoted portions from the specification, where it is unambiguously indicated that the size of the packets are increased, and packetized according to the adjusted size.

In claims 14-15, there was alleged to be no support for the limitation "a controller coupled to the codec, the jitter buffer, and the packetizer, wherein the controller is configured to cause the packetizer to adjust a packet size if said packet size is related to a jitter buffer size according to predetermined criteria, such that packets received at said jitter buffer are of a new size." The Examiner's attention is respectfully directed to the above-quoted portions from the specification, where it is unambiguously indicated that the packet size is determined based on, e.g., threshold criteria.

In claim 16, there was alleged to be no support for the limitation "adjusting said packet size if said packet size is related to said jitter buffer size threshold according to predetermined criteria." The Examiner's attention is respectfully directed to the above-quoted portions from the specification, where it is unambiguously indicated that the packet size is determined based on, e.g., threshold criteria.

Claims 9-15 were rejected under 35 U.S.C. §102(e) as being anticipated by Guy et al., U.S. Patent No. 5,940,479 ("Guy"). In order for there to be anticipation, each and every element of the claimed invention must be present in a single prior reference.

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Applicants respectfully submit that the claimed invention is not taught, suggested, or implied by Guy.

As discussed in the Specification, conventional systems employing jitter buffers can disadvantageously mismatch the size of the jitter buffer and the length of data packets. As such, the present invention provides for adjusting the size of the packets to better match the buffer. That is, the actual packets themselves are adjusted. According to one embodiment, a packet size is compared to a threshold related to buffer size and the packet size may be adjusted responsive thereto.

Thus, claim 9 has been amended to recite "wherein each of said plurality of endpoints includes a jitter buffer controller configured to adjust a packet size of packets being input to said jitter buffer for communication over said packet network by comparing a packet size to a predetermined threshold value, said predetermined threshold value related to a jitter buffer size, and increasing said packet size if said packet size is less than said threshold;" and claim 14 has been amended to recite "a controller coupled to the codec, the jitter buffer, and the packetizer, wherein the controller is configured to cause the packetizer to adjust a packet size if said packet size is related to a jitter buffer size according to predetermined criteria, such that packets received at said jitter buffer are of a new size wherein the predetermined criteria is a threshold fraction of the jitter buffer size."

In contrast, as discussed in response to the previous Official Action, and as acknowledged at page 8 of the Official Action, Guy fails to teach adjusting a length of the packet based on the size of the buffer. Thus, applicants respectfully submit that Guy likewise has nothing to do with adjusting a packet size based on a threshold value related to a size of the buffer, as generally recited in the claims at issue. *Instead, Guy provides merely for modifying the size of the buffer responsive to network delay, not to adjusting a packet size responsive to a buffer size.*

The passages cited by the Examiner are not to the contrary. Column 9 of Guy, for example, recites that "the size of the jitter buffer is dependent upon the variation in the end-to-end packet delay in the network and can be dynamically adjusted based upon, for example, this packet delay variation" and that "[t]he voice enhancement unit

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320 also dynamically measures the end-to-end delay in the network and adjusts the size of the jitter buffer accordingly." Column 17 indicates that increasing the size of the buffer can increase network delay. However, at no point does Guy teach, suggest or imply increasing a packet size based on a jitter buffer size, as generally recited in the claims at issue. Thus, if anything, Guy is representative of a problem solved by the present invention. Indeed, Guy contains no hint that its practice of adjusting buffer size is any way insufficient.

While Guy indicates that the voice enhancement unit 320 can "also dynamically adjust the rate of the bit stream," Guy nowhere indicates that it is at all desirable to adjust a packet size based on a buffer size. Further, Guy nowhere even hints that a threshold related to buffer size can be used for adjusting a packet size. Thus, Guy appears to make no mention whatsoever, explicitly or inherently, that packet size is adjusted or that this is even desirable. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

Claims 1-8 were rejected under 35 U.S.C. 103 as being unpatentable over Guy. Like the claims discussed above, these claims also relate generally to adjusting a packet size for packets responsive to a jitter buffer size. Thus, Claims 1 and 5 recite "adjusting a length of said one or more information packets for input to said jitter buffer based on a size of said jitter buffer." Because there appears to be no teaching in Guy concerning adjusting a packet size responsive to a jitter buffer size, Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

Claims 10-12 were rejected under 35 U.S.C. 103 as being unpatentable over Guy in view of Databeam H.323 Primer ("Databeam"). Guy has been discussed above. Databeam is relied on merely for teaching an H.323 system. However, like Guy, Databeam does not relate to adjusting a packet size to match a jitter buffer. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

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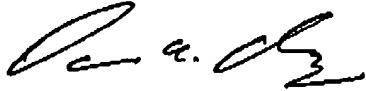
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For all of the above reasons, Applicants respectfully submit that the application is in condition for allowance, which allowance is earnestly solicited.

Respectfully requested,

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